



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/719,123 | 11/21/2003 | Tadao Endo | 1232-5214 | 2237 |
| 27123 | 7590 | 08/24/2005 | | EXAMINER |
| MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101 | | | | HO, ALLEN C |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2882 | |

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|---------------------------------------|---------------------------------|--|
| Office Action Summary | Application No. | Applicant(s) |  |
| | 10/719,123 Examiner Allen C. Ho | ENDO, TADAO Art Unit 2882 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 May 2005.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-23 is/are pending in the application.
 4a) Of the above claim(s) 3,10-20 and 22 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1,2,4-9,21 and 23 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 21 November 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>13042004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species I in the reply filed on 27 May 2005 is acknowledged. The traversal is on the ground(s) that the examiner must show that there is a serious burden as required by MPEP § 803. This is not found persuasive because the search of the claimed subject matter involves at least three different classes: 250, 348, and 378, and each species must be independently searched. This kind of search presents serious burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 3, 10, 11-20, and 22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 27 May 2005.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 114, (Fig. 24), 115 (Fig. 25). Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate

Art Unit: 2882

prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

5. Claim 6 is objected to because of the following informalities: Claim 16 recites the limitation "the convention element" in line 17. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4-9, 21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi *et al.* (U. S. Patent No. 5,841,180).

With regard to claims 1 and 23, Kobayashi *et al.* disclosed a radiographic apparatus comprising: a conversion circuit section in which pixels each including a conversion element (**S11 - S33**) that converts incident radiation into an electrical signal and a switch element (**T11 - T33**) that transfers the electrical signal are two-dimensionally arrayed, and which comprises a control interconnection (**g1 - g3**) that connects the pixels in a row direction and a signal connection (**sg1 - sg3**) that reads the electrical signal from the conversion element through the switch element; a driving circuit section (**SR1**) which sequentially drives a plurality of control interconnections; and a read circuit section (**SR2**) which is connected to a plurality of signal interconnections and reads the electrical signal from the conversion element for each row; wherein the read circuit section includes a refresh device (**1700**) which refreshes each row by applying a first bias (V_{rg}) to the read-accessed conversion element, and a reset device (**1400**) which executes reset by applying a second bias (ground) to the signal interconnection by using at least one reset switch (**1400**).

With regard to claim 2, Kobayashi *et al.* disclosed the apparatus according to claim 1, wherein the read circuit section further includes an amplification device (**1126**) which amplifies the electrical signal read to the signal interconnection, a storage device (**6004**) which temporarily stores the amplified electrical signal, and a serial conversion device which serially converts the stored electrical signal (Fig. 30).

With regard to claim 4, Kobayashi *et al.* disclosed the apparatus according to claim 1, wherein the conversion element and the switch element contain amorphous silicon (column 9, line 59 - column 10, line 7).

With regard to claim 5, Kobayashi *et al.* disclosed the apparatus according to claim 1, wherein the conversion element and the switch element are formed on the same substrate in the same step (column 31, lines 32 - 36).

With regard to claim 6, Kobayashi *et al.* disclosed the apparatus according to claim 1, wherein the conversion element comprises a first metal thin-film layer (2) that is formed on a substrate (1) as a lower electrode, an insulating layer (70) that is formed on the first metal thin-film layer and made of amorphous silicon nitride, a photoelectric conversion layer (4) that is made of hydrogenated amorphous silicon and formed on the insulating layer, an n-type injection inhibiting layer (5) that is formed on the photoelectric conversion layer, and a transparent conductive layer (6) that is formed on the injection inhibiting layer as an upper electrode or a second metal thin-film layer that is formed on part of the injection inhibiting layer (Fig. 4A).

With regard to claims 7 and 8, Kobayashi *et al.* disclosed the apparatus according to claim 1, further comprising a wavelength converter (CsI, 6030) which converts a wavelength of the radiation.

With regard to claim 9, Kobayashi *et al.* disclosed the apparatus according to claim 1, further comprising a bias interconnection which applies a bias (114) to the conversion element.

With regard to claim 21, Kobayashi *et al.* disclosed a radiographic system comprising: a radiation source (6050); a radiographic apparatus of claim 1; an image processing apparatus

Art Unit: 2882

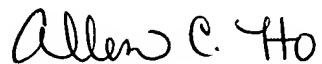
(6070) which converts an electrical signal output from the radiographic apparatus into digital data and executes image processing; and a display (6080).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen C. Ho
Primary Examiner
Art Unit 2882

22 August 2005